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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,037	10/11/2005	Ulrike Licht	278600US0PCT	6780
22850 7590 01/05/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER NILAND, PATRICK DENNIS	
			ART UNIT	PAPER NUMBER
			1714	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/553,037

Applicant(s)

LICHT ET AL.

Examiner

Patrick D. Niland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/06, 3/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

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1. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Numerous components are denoted with "if appropriate". It is unclear how one determines whether or not these components are appropriate.

B. The instant claims recite numerous molecular weights regarding polymeric species without specifying the type of molecular weight, e.g. number, weight, viscosity, z, etc. average. It is therefore unclear what type of polymer molecular weight is intended.

C. The instant recitation of "obtainable" encompasses other polymers made by other processes potentially. Since one does not precisely and accurately know the exact identity of what is made by a given polymerization reaction and the actual product can vary drastically by reaction conditions, it would require an undue amount of experimentation to determine what other products made by other processes fall within the scope of the products of the instant claims. "Obtained" is acceptable.

The following are supporting descisions for rejecting "obtainable" and similar terms as indefinite.

1. Atlantic Thermoplastics Co. Inc. v Faytex Corp. 23 USPQ 2nd 1481 (1486).

In footnote 6, on page 1486, referring to *Cochrane v Badische Aniline and Soda Fabrik* (BASF), 11 US 293, the court stated "...because artificial alizarine can take different forms, BASF's claim would be indefinite unless limited to the described process".

The claim referred to is

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"Artificial alizarine produced from anthracene or its derivatives by either of the methods described herein or any other method producing a like result."

2. Ex parte Tanksley 26 USPQ 2nd 1389

"A claim is indefinite if undue experimentation is involved to determine boundaries of protection".

This rationale is applicable to polymers obtainable by a stated process because any variation in any parameter within the scope of the claimed process would change the polymer produced. One who made or used a polymer made by a process other than the process recited in the claim would have to produce polymers using all possible parameters within the scope of the claims (temperature, pressure, diluents, component ratios, feed ratios, etc.) and then extensively analyze each product, to determine if his polymer was obtainable by a process within the claimed process.

3. Purdue Research v Watson 1959 CD 124 (Dist Ct) affirmed by CCPA 120 USPQ 521.

"Preparable by" was held to not particularly point out and distinctly claim the invention.

"When one has produced a composition of matter where it is not possible to define its characteristics which make it inventive except by reference to the process by which it is produced, one is permitted to so claim the composition produced by the process referred to in the claims. When the composition is thus claimed in terms of the process of its preparation, the product cannot be defined in such a manner as to assert a monopoly on the product by whatever means produced.

D. It is unclear what type of average, e.g. number, weight, volume, etc. of average particle size is intended by the instant claims reciting particle sizes, such as 7 and 17-20.

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2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 5959027 Jakubowski et al. in view of US Pat. No. 4046729 Scriven et al..

Jakubowski discloses making high solids aqueous primary polyurethane dispersions by reacting polyisocyanate, polyols including polyether and polyester polyols, and chain extenders which fall within the scope of the instantly claimed component b3 and which may include chemically incorporated ionic and nonionic stabilizing functionalities (column 5, lines 57-60). See the entire document, particularly the abstract; column 1, lines 54-67; column 2, lines 1-67, particularly 1-54; column 3, lines 1-67, particularly 36-67, which encompass the instantly claimed ethylene oxide containing moieties; column 4, lines 1-67, particularly 1-52; column 5, lines 1-67, particularly 1-4, 10-15, and 57-60, which discloses the use of chemically incorporated anionic and nonionic moieties to stably disperse the polyurethane of the patentee, and 61-67; column 6, lines 1-67, particularly 1-11 and 53-63, noting the particle sizes and polydispersities thereof of the examples, which indicates that some type of average particle size of the polyurethanes of the patentee fall within the scope of the instant claims 7 and 17-19; and the remainder of the document. It is not seen that "primary dispersion" does not include the primary dispersions of the patentee. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed amounts of ethylene oxide moieties and ionic moieties to stabilize the polyurethane of the patentee in view of their disclosure at column

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5, lines 57-60 and the fact that the state of the art has been to use both ethylene oxide moieties, in combination with other more hydrophobic moieties, including propylene oxide and other alkylene oxides to stably disperse polyurethanes in water as evidenced by the full disclosure of Scriven et al., particularly the abstract; column 7, lines 44-68; column 8, lines 1-68, particularly 34-67, more particularly 49-51 and 52-55 which encompasses terminating the polyethers with the instantly claimed CH₂OH groups; column 9, lines 1-68, particularly 1-25, more particularly 20-25, which encompasses the instantly claimed polyesterols having the instantly claimed ethylene oxide moieties; column 11, lines 1-68, particularly 1-40 which discloses the instantly claimed component c and its purpose; column 13, lines 1-68, particularly 11-22 column 15, lines 53-68; column 16, lines 1-68; column 17, lines 1-68, particularly 31-53 of which the clear dispersions are understood by those of ordinary skill in the art to be very small particles, often of only one molecule, which are too small to give the Tyndall effect and which would have the instantly claimed particle sizes; and the remainder of the document and the ordinary skilled artisan, at the time of the instant invention was well aware of the effects of using both ionic and nonionic means to stably disperse polyurethanes in water because their affect on the Hydrophile/Lipophile Balance of the polyurethane and the HLB affect on the stability of the dispersed polyurethane is well known and the patentees encompass the instantly claimed amounts of ethylene oxide moieties. There are no unexpected results shown, in a manner commensurate in scope with the cited prior art and the instant claims, stemming from the instantly claimed ethylene oxide amounts. The above requires the reacting of the components of the instant claim 8. It is not seen that the dispersers of the patentee's would use shear above that of the instant claim 9, particularly where enough hydrophilic portion is present in the

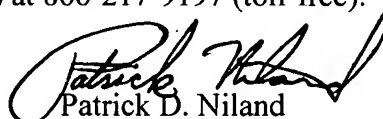
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polyurethane that it is self dispersing (See Scriven column 5, lines 15-25 and column 17, lines 7-11 and Jakubowski, column 4, lines 23-27 and column 8, lines 20-25). Coating substrates according to the instant claims 10-11 is disclosed at Jakubowski, column 7, lines 13-18.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Patrick D. Niland
Primary Examiner
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